AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 03/00877 filed on March 18, 2003.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0003] with the following amended paragraph:

[0003] ~~Background of the Invention~~ Description of the Prior Art

Please replace paragraph [0005] with the following amended paragraph:

[0005] A known fuel injection system is ~~disposed~~ disclosed in German published, unexamined patent application DE 199 10 970 A1. Here the fuel is pumped by a feed pump out of a tank into a central pressure reservoir chamber and from there is carried via a plurality of high-pressure lines to respective injectors for injection into the combustion chambers of the engine. The pressure reservoir chamber of the fuel reservoir is defined by the walls of the tube. To further increase the injection pressure, a further pressure booster unit may be provided between the fuel reservoir and the injectors. A disadvantage of this fuel injection system is that the fuel reservoir, which is disposed on the outside of and in the vicinity of the respective cylinder of the cylinder head, requires additional space in the engine compartment. Moreover, in such fuel reservoirs, the maximum ~~height of the~~ pressure level is limited by the wall thicknesses of the tube forming the reservoir chamber and by the various connecting lines.

Page 2, please replace paragraph [0008] with the following amended paragraph:

[0008] Embodying a fuel injection system in accordance with the invention ~~as defined by the characteristics of claim 1~~ advantageously reduces the space required for the injection system. The fuel injection system as proposed herein can be designed for both self-igniting internal combustion engines and direct-injection gasoline engines. If the fuel injection system proposed according to the invention is used in self-igniting internal combustion engines, the fuel reservoir is designed as a high-pressure fuel reservoir, so as to withstand the pressures required. If the fuel injection system proposed according to the invention is used in direct-injection gasoline engines, the fuel reservoir can be designed with a wall thickness that takes the lower fuel pressure level that is required in that case into account.

Page 3, please replace paragraph [0009] with the following amended paragraph:

[0009] Because the fuel reservoir is at least partly integrated with the cylinder head of the engine, the pressure reservoir located on the outside, in the form of a tube, in previously known systems used in self-igniting internal combustion engines can be eliminated. Moreover, a complicated fastening of the reservoir and connecting tubes is not needed, because of the integrated embodiment of the reservoir chamber of the fuel reservoir in the interior of the cylinder head. Another advantage is that the fuel reservoir can be disposed directly in the vicinity of the various injectors, and as a result the connecting distances on the high-pressure side form the fuel reservoir into the respective combustion chamber via the injectors are reduced. The space

available in the cylinder head of internal combustion engines is thus optimally utilized in terms of realizing a fuel injection system. The lines leading to and from the fuel reservoir are likewise advantageously embodied in the cylinder head of the engine. Alternatively, the reservoir chamber of the fuel reservoir can be disposed directly on the various injectors, so that the connecting lines on the high-pressure side are then omitted entirely.

Please replace paragraph [0010] with the following amended paragraph:

[0010] Another advantage of the invention is that the high pressures prevailing in the fuel reservoir are absorbed by all the material comprising the cylinder head, which material surrounds the reservoir chamber integrated into it. Thus the stresses that arise in the reservoir chamber need not be absorbed entirely by the direct wall of a tubular fuel reservoir.

Please replace paragraph [0011] with the following amended paragraph:

[0011] In an advantageous feature of the invention, the fuel reservoir is embodied by a recess in the cylinder head. The shape and size of the recess can vary, depending on the particular storage volume required. Thus by simply providing a recess in the material comprising the cylinder head, the fuel reservoir can be disposed directly ~~and~~ in the vicinity of the injectors of the injection system. Additional fastenings for the fuel reservoir are dispensed with entirely. Advantageously, the recess of the fuel reservoir is a cylindrical, elongated recess in the vicinity of and along the injectors, which as a rule are arranged in a row. The connecting distances of the high-pressure lines to the respective injectors are thus as short as possible, and are all equal in length. In an embodiment of the invention that is advantageous in this respect, the high-pressure lines that connect the fuel

reservoir to the various injectors are embodied as connecting conduits that are integral with the material comprising the cylinder head.

Page 5, please replace paragraph [0014] with the following amended paragraph:

[0014] The cylinder head ~~having the characteristics of claim 11,~~ which is intended for operating an internal combustion engine in conjunction with a fuel injection system, preferably has a fuel reservoir and respective high-pressure lines that are at least partly integrated into the cylinder head. "Integrated embodiment" is understood here to mean that the reservoir chamber of the fuel reservoir and/or the high-pressure lines are provided by means of recesses or bores in the material comprising the cylinder head of the engine itself. As a result, the required installation volume for the injection system in the engine compartment is reduced, and additional fasteners for a separate high-pressure reservoir located on the outside are dispensed with. The recesses and conduits of high-pressure connecting lines and of the storage volume of the high-pressure fuel reservoir in self-igniting internal combustion engines, for instance, can advantageously be realized by means of insert cores in the operation of casting the cylinder head, or alternatively by means of cylindrical bores, or by a combination of the two.

Please replace paragraph [0015] with the following amended paragraph:

[0015] ~~Drawing~~ BRIEF DESCRIPTION OF THE DRAWINGS

Please replace paragraph [0016] with the following amended paragraph:

[0016] The invention will be describe in further detail below in conjunction with the drawings, in which: ~~drawing.~~

Please delete paragraph [0017].

Please replace paragraph [0018] with the following amended paragraph:

[0018] Fig. 1~~;~~ is a schematic illustration of a first embodiment of a fuel injection system according to the invention, with a fuel reservoir in the form of a recess in the cylinder head; and

Page 6, please replace paragraph [0019] with the following amended paragraph:

[0019] Fig. 2~~;~~ is a sectional view of a second embodiment of a fuel injection system according to the invention, with a fuel reservoir integrated into the cylinder head directly beside various injectors.

Please replace paragraph [0020] with the following amended paragraph:

[0020] ~~Embodiments~~ DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace paragraph [0021] with the following amended paragraph:

[0021] In Fig. 1, a first embodiment of a fuel injection system according to the invention is shown schematically, having a fuel reservoir 1 integrated, in the form of a recess 6, into a cylinder head 5. In self-igniting internal combustion engines, the fuel reservoir is embodied as a high-pressure reservoir (common rail); in direct-injection gasoline engines, the fuel reservoir is designed for a lower pressure level. The fuel injection system proposed according to the invention can be used both in self-igniting internal combustion engines and in direct-injection gasoline engines.

Please replace paragraph [0022] with the following amended paragraph:

[0022] Fuel is pumped from a fuel tank 11 by a feed pump 2 and is furnished in compressed form in ~~a~~ the central fuel reservoir 1, which in self-igniting internal

combustion engines is designed as a high-pressure reservoir, and from there is delivered to the combustion chambers 38 of the engine. The ~~feed~~ fuel pumped by the feed pump 2 passes via a sealing body 9 to reach the high-pressure fuel reservoir 1, which according to the invention is embodied as ~~a~~ the recess 6 in the interior of, and integrated with, ~~a~~ the cylinder head 5 of an internal combustion engine. The recess 6, which - in the case of self-igniting internal combustion engines forms the high- pressure fuel reservoir 1 and in the case of direct-injection gasoline engines forms the fuel reservoir - is an elongated cylindrical recess 6 in the embodiment shown in Fig. 1 and is disposed in the vicinity of and parallel to fuel injectors 3 that are in line with one another. The fuel reservoir 1 communicates via high-pressure lines 4 with the various fuel injectors 3 for carrying the compressed fuel onward. In the embodiment shown in Fig. 1, the high-pressure lines 4 are likewise embodied as connecting conduits 7 integrated into the cylinder head 5. The recess 6 and the connecting conduits 7~~,~~ which form the high-pressure lines 4~~,~~ can, in the embodiment shown, be produced in the form of insert cores during the operation of casting the cylinder head 5 of the engine. Alternatively, they can equally well be formed by casting and subsequent drilling of the cylinder head 5. ~~Alternatively, they can equally well be formed by subsequent drilling of the cylinder head 5.~~

Page 7, please replace paragraph [0024] with the following amended paragraph:

[0024] A first branch 17 leading to the fuel injector 3 is located at a spacing marked by reference numeral 19 from the inlet end of the cylindrical recess 6. The spacing

19 between the first branch 17 and the inlet end of the cylindrical recess 6 is dependent on the pressure level to which the cylindrical recess 6, serving as the high-pressure fuel reservoir 1 (in the case of self-igniting internal combustion engines) or as the fuel reservoir 1 (in the case of direct- injection gasoline engines), is subjected via the feed pump 2. The first branch 17 to the fuel injector 3 is followed by a further, second branch 18 to a second fuel injector 3. The axes of symmetry of the fuel injectors 3, which are provided in a number corresponding to the number of cylinders of the engine whose combustion chambers ~~of an engine that~~ are to be supplied with fuel, are identified by reference numeral 16. The fuel injectors 3 are each let into fastening openings 10 that are made in the cylinder head 5.

Page 8, please replace paragraph [0026] with the following amended paragraph:

[0026] Advantageously, by means of the provisions of the invention it is attained that the material defining the cylindrical recess 6 inside the cylinder head 5 can be utilized to absorb the pressure forces that prevail in the high-pressure fuel reservoir 1 or the fuel reservoir 1. The same is true for the material of the cylinder head 5 in the self-igniting internal combustion engine that surrounds both the insert pieces 15 and the fuel injectors 3. The stresses arising from the high pressure prevailing in the interior of the cylindrical recess 6 are absorbed not only via the direct walls of the high-pressure reservoir, as is usual in reservoirs located outside the cylinder head 5 in the prior art, but is also intercepted by all the surrounding material comprising the cylinder head 5. Because of the loss of the material comprising the cylinder head 5

in the casting operation, intrinsic stresses are induced, which contribute to reducing stress resulting from the fuel pressure.

Page 11, please replace paragraph [0032] with the following amended paragraph:

[0032] The injector body 20 of the fuel injector 3 is fastened in the cylinder head 5 via a clamping body 29. The clamping body 29 includes a receptacle portion ~~36~~ 35, which fits over the head region of the injector body 20 of the fuel injector 3. Below that head region, an annularly configured contact face 28 is embodied on the injector body 20, and the clamping body 29 rests on this contact face and presses the injector body 20 into a contact face 36 provided on the nozzle end of the injector body. The injector body 20 of the fuel injector 3 is likewise surrounded virtually entirely by the material comprising the cylinder head 5, either of a self-igniting internal combustion engine or of a direct-injection gasoline engine. The clamping body 29 includes a bore 30 for a clamping screw 31. By means of the clamping screw 31, the clamping body 29 is secured to the cylinder head 5. The clamping body 29 furthermore includes a support 33, which has a rounded feature 34. The rounded feature 34 of the support 33 on the clamping body 29 is braced on a plane face 32 of the cylinder head 5. By means of the proposed fastening capability, the injector body 20 of the fuel injector 3 can be removed very easily from the cylinder head 5 of the engine, once the clamping screw 31 is loosened and the clamping body 29 is removed by means of a tool that engages the annularly extending contact face ~~38~~ 28 of the injector body 20 from underneath.

Page 13, please add the following new paragraph after paragraph [0035]:

[0036] The foregoing relates to preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.

Please delete pages 15 and 16.